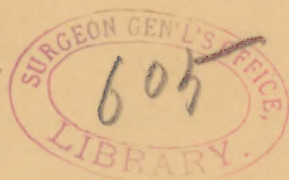


Wilcox (R.W.)

The newer preparations
of bismuth.



The newer....

preparations of

Bismuth.

By REYNOLD W. WILCOX, M. D., LL. D.,

OF NEW YORK;

PROFESSOR OF MEDICINE AND THERAPEUTICS AT THE NEW YORK POST-

GRADUATE MEDICAL SCHOOL AND HOSPITAL; VISITING PHYSICIAN

TO ST. MARK'S HOSPITAL.

(Abstracted from the Medical News, New York, July 31, 1897.)

ABOUT three years ago I published, in the *Post-Graduate*, my investigations upon certain definite chemic compounds of bismuth with phenol, naphthol, and tribromophenol. At that time I summarized my results from the cases of more than one hundred patients who had been treated with these preparations. I believed that a real advance had been made toward attaining intestinal antisepsis.

The use of bismuth internally is too ancient to admit of argument as to its value. The soluble salts have a limited use, for, so far as our knowledge goes, they act similarly to those of mercury. The subcarbonate and subnitrate, in view of recent discoveries, certainly have a limited use. The former, on account of its generation of carbon dioxid gas in certain combinations, could well be dispensed with altogether. The subnitrate has its only special use in the treatment of gastric ulcer, where its high specific gravity gives it a certain advantage, and this is, in my personal practice, its only use, and even here I believe that the naphtolate should be administered coincidentally.

Of the three preparations to which my former paper was mainly devoted I have found that the bismuth naphtolate (bismuth. oxid. 80 per cent., and betanaphthol, 20 per cent.) is of the greatest value. This preparation is decidedly antiseptic, if Jasenski's experiments in Nencki's laboratory are trustworthy, and, besides, observation certainly confirms them. It is partly decomposed in the stomach, but the process is completed in the

presented by the author

LIBRARY
SURGEON GENERAL'S OFFICE
JUL-2--1898
605

small intestine. The naphthol is partially, a small part I believe, eliminated by the kidneys and a larger portion passes entirely by the bowels. The bismuth is eliminated by the bowel as a sulphid, but the rapid disappearance of odor cannot be entirely due to this chemic combination.

Several observations show that there exists a marked antiseptic action from the use of this preparation. One of the most severe instances of intestinal putrefaction which I have ever encountered occurred in the person of a veteran of the Civil War. This man was wounded by a fragment of shell which carried into the liver portions of clothing, which lodged in that organ. During two years there was continual suppuration, with discharge of foreign matter, before healing was complete. When the patient came under my observation the liver was not palpable, and percussion showed the area of flatness to be diminished to one-sixth its normal degree. In this case the discharge of gas was so continuous, and in such large amounts, that although no sphincteric incompetency existed, one could readily believe that the fecal odor which surrounded the patient was due to that condition. The enormous distention, the secondary results, and the disturbance of nutrition rendered the patient's condition truly deplorable. A faithful administration of the bismuth naphtholate not only relieved the patient of the offensive odor and limited the tympanites, but gave great comfort and improved his nutrition, so that within a month he expressed himself as being completely relieved. This relief has persisted under the administration of the drug for the past two years.

Of the typhoid fever patients who have come under this treatment during the first week or ten days of their illness, none have presented the classic symptoms, and all had a low temperature without marked abdominal symptoms, and without, as a rule, any indication for further medication. Neither diarrhea, fetor, or tympanites occurred. There was no fear of perforating ulcerations, for there is but little opportunity for ulceration in a bowel in which there is no fermentation going on. Obviously, in patients who are markedly septic after expectant, tubbing, or after no treatment has been instituted, another plan must be pursued. These are instances of bad management, and are septic cases in which all remedies which benefit general septicemia are applicable.

Following Hueppe, bismuth tribromophenolate has been used extensively; its use is similar to that of the naphtholate. Of late, I have not used this preparation as extensively as the naphtholate, although its sweetness and astringency are certainly of advantage. The phenolate has proved its utility in a large number of instances of gastric fermentation. From the use of neither of these drugs have I observed toxic symptoms, and frequently I have administered them to the amount of 90 to 120 grains daily. Their harmlessness can be attributed to the fact that they slowly decom-

pose and the phenol is not set free much faster than it can be eliminated. My observations have been confirmed by Fischer, Engel, Chaumier, and many others, and can be considered accurate and reliable. I have but little to add to and nothing to retract from the statements which I made three years ago.

The most important addition to the therapeutic uses of bismuth naphtolate is in the treatment of the diarrheas of patients suffering from pulmonary tuberculosis. It is well known that next to the complication of tuberculous laryngitis, diarrhea is the most unfortunate. Even a few days of profuse discharges will undo the work of weeks. In several instances a rapid increase of the dose of the naphtolate to 60 or even 120 grains daily has given brilliant results ; in one patient, however, there was utter failure, and in his case no drug or combination of drugs was of any avail.

From this brief survey of the results of the administration of the newer bismuth preparations, we may conclude :

1. That the use of the organic in place of the inorganic bismuth compounds should be insisted upon.
2. That the compounds of bismuth with betanaphtol, phenol, and tribromophenol, are remedies which produce practical intestinal antiseptis.
3. That they are indicated in all gastro-intestinal fermentations and catarrhs until the symptoms are relieved, the dose to be determined by the severity of the symptoms.
4. That they are non-toxic and do not give rise to untoward symptoms.

Betanaphtol-Bismuth (Orphol).

[Editorial in the Medical Summary, Phila., August, 1897.]

Orphol influences the mucous membrane of the digestive tract in two ways. In the first place it is a disinfectant, hindering the development of the bacteria. It is also an astringent to the mucosa, in virtue of the bismuth that it contains. It is worthy of notice, also, that orphol does not, like opium and tannin, in any way interfere with the stomach, so that even patients suffering with dyspepsia bear it very well. To Chaumier is due our first knowledge of its antiseptic and astringent properties, and he explained the theory of its pharmacodynamic action. He showed that betanaphtol-bismuth was decomposed in the intestinal canal into naphtol and bismuth, the first being antiseptic and the last astringent. A small portion of the naphtol is excreted in the urine ; the rest passes out with the feces. The new intestinal antiseptic is worthy of the attention of the practitioner.

Dr. J. C. Culbertson, in an editorial in *The Cincinnati Lancet-Clinic* of June 5th, 1897, entitled "The Children," says:

"There are many cases of persistent diarrhea in children, sometimes apparently due to a general relaxation because of the heat. Such cases may be relieved by frequent bathings in water at a temperature most agreeable to the child, accompanied by a few doses of beta-naphtol bismuth or subgallate of bismuth. These preparations of bismuth act most admirably; the former, in particular, not only exerts a soothing influence by its topical effect upon the irritated and inflamed mucous membrane, but also acts as a disinfectant."

Note—Commercial imitations of "Betanaphtol-Bismuth," and labeled as such, have recently been placed on the market, and have been found to cause unpleasant symptoms, and do the patient harm rather than good. Dr. Chaumier has proved this to be the case with certain French preparations. They consist mostly of mixtures of bismuth and free naphtol, and therefore have a burning taste and are without action upon the gastrointestinal canal. The genuine compound of Von Heyden, in Radebeul, near Dresden, is the one with which Drs. Fischer and Wilcox of New York, Engel of Philadelphia, and Chaumier of Tours, have attained their brilliant results. It contains no free naphtol, the combination with bismuth being a chemical one, and hence has neither the unpleasant taste nor the irritant action of the imitative mixtures. In the interest of the physician as well as that of the patient, Von Heyden has named the true Betanaphtol-Bismuth "*Orphol*," under which it will be sold. By prescribing it under this name the genuine article will always be obtained.

DOSAGE OF BETANAPHTOL-BISMUTH (ORPHOL).

For Adults in gastro-intestinal catarrh, proctitis, dysentery, bacillary and choleraic diarrhea, gastritis, typhoid fever, etc., 15 to 75 grains daily.

For Children suffering from gastro-enteritis, cholera infantum, etc., from 2 to 5 grains may be given every three or four hours—according to age—with a little boiled water when the stomach is empty; or it may be administered suspended in syrup or mixed with honey.

We will furnish any physician, who cannot procure *Orphol* from his druggist, at \$1.00 per ounce, including packing, postage and insurance. Orders, to receive prompt attention, should be accompanied by the amount.

SCHERING & GLATZ,

No. 55 Maiden Lane, New York, N. Y.,

Sole Agents for the United States.

